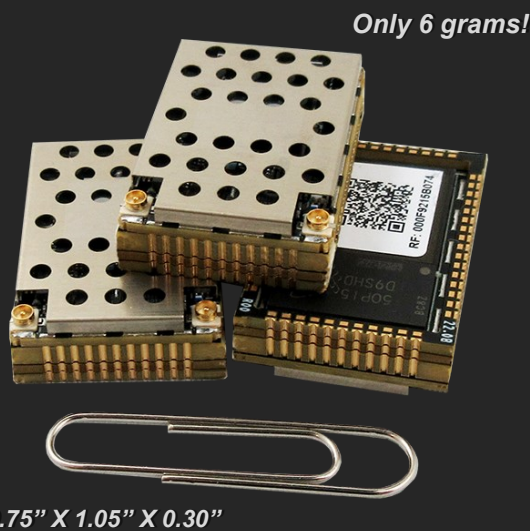


Miniature Dual Frequency OEM Digital Data Link

The fDDL2460 is a miniature, 2.4 GHz and 5-6 GHz long range wireless modem. The fDDL2460 delivers a OEM solution compatible with the Microhard fDDL footprint. The modem features OFDMA using 2 Transmit and 2 Receive Antenna's. The fDDL2460 is capable of long range for wireless data transmission.



2.4 GHz & 5-6 GHz

MIMO 2TX and 2RX

> 100 Mbps

Ethernet, USB, Serial

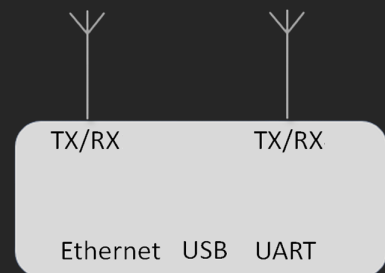
PTP | PMP | Relay | MESH

Spectrum Scan

4/5/8/10/20/40 MHz Channels

Features

- Software Selectable 2.4 GHz or 5-6 GHz Operation
- Software Selectable Channel Bandwidth
- Maximal Ratio Combining (MRC), Maximal Likelihood (ML) decoding
- Low-Density Parity Check (LDPC)
- Up to 32 Mbps Iperf Throughput @ 8 MHz channel (-85 dBm)
- Up to 16 Mbps IPerf Throughput @ 4 MHz channel (-88 dBm)
- Adjustable total transmit power (up to 1W)
- Ethernet, Serial & USB Ports
- Supports Point-to-Point, Point-to-Multipoint & MESH Networks
- Master, Remote, Relay & MESH Operating Modes.
- Local and remote wireless firmware upgrading through FTP



Enclosed

Microhard - Confidential

Specifications



Frequency (Selectable)	2.402 - 2.478 GHz 5 - 6 GHz
Error Detection	CRC / FEC Coding
Ports	Serial Data/Console Ethernet USB
	RS232 TTL level (300 bps - 230 kbps) 10/100/1000 BaseT IEEE802.3 2.0
Firewall	Port Forwarding, Access Control, IP/MAC List.
Operating Modes	Point-to-Point, Point-to-Multipoint, Relay, MESH
Diagnostics	Remote Diagnostics, Ping, Traceroute, ARP table, DHCP active leases, IPerf, RSSI
Management	Local Serial Port Console, Telnet, WebUI, SNMP, FTP Upgrade, TFTP, CLI (Command Line Interface)
Rejection	Excellent strong signal interference & rejection characteristics
Input Voltage	OEM ENC Digital Voltage = 3.3V / RF Voltage = 5V 9 - 30 VDC
Connectors:	OEM ENC Antennas: UFL x2 Data: 80 Pin SMT Antennas: SMA Female x2 Ethernet: RJ45 Serial: DE9 Female USB: Type-C Power: 4-PIN Interlock
Environmental	Temperature Humidity -40°F to 185°F (-40°C to +85°C) 5-95%, non-condensing
Weight	OEM Approx. 6 grams
Dimensions	OEM ~ 19 x 27 x 7.5 mm
Certifications (Pending)	FCC/IC CE MIC-Japan

Optimal Throughput		
Bandwidth	2.4GHz	5GHz
4MHz	+25	+25
5MHz	+45	+45
8MHz	+50	+50
10MHz	+90	+90
20MHz	+180	+200
40MHz	+350	+400

Order Options	
fDDL2460	2.4 / 5-6 GHz OEM Digital Data Link
fDDL2460-SWP	2.4 / 5-6 GHz Miniature Digital Data Link

2.4GHz Optimal Performance Specifications			
Modulation	IPerf Throughput (Mbps)	Optimal MRC Sensitivity (dBm)	Total Tx Power (dBm) +/- 1dB
	STBC	2x RX ANTENNA	2x TX ANTENNA
8 MHz (MIMO ON)			
BPSK_1/2	3.2	-101	30dBm
QPSK_1/2	6.3	-99	30dBm
QPSK_3/4	9.5	-97	30dBm
16QAM_1/2	12.6	-95	30dBm
16QAM_3/4	19	-93	30dBm
64QAM_2/3	25.4	-89	30dBm
64QAM_3/4	28.6	-87	30dBm
64QAM_5/6	32	-85	30dBm
4 MHz (MIMO ON)			
BPSK_1/2	1.6	-104	30dBm
QPSK_1/2	3.2	-102	30dBm
QPSK_3/4	4.6	-100	30dBm
16QAM_1/2	6.5	-98	30dBm
16QAM_3/4	9	-96	30dBm
64QAM_2/3	12.5	-92	30dBm
64QAM_3/4	14	-90	30dBm
64QAM_5/6	16	-88	30dBm

5GHz Optimal Performance Specifications			
Modulation	IPerf Throughput (Mbps)	Optimal MRC Sensitivity (dBm)	Total Tx Power (dBm) +/- 1dB
	STBC	2x RX ANTENNA	2x TX ANTENNA
8 MHz (MIMO ON)			
BPSK_1/2	3.2	-101	30dBm
QPSK_1/2	6.3	-99	30dBm
QPSK_3/4	9.5	-97	30dBm
16QAM_1/2	12.6	-95	30dBm
16QAM_3/4	19	-93	30dBm
64QAM_2/3	25.4	-89	30dBm
64QAM_3/4	28.6	-87	30dBm
64QAM_5/6	32	-85	30dBm
4 MHz (MIMO ON)			
BPSK_1/2	1.6	-104	30dBm
QPSK_1/2	3.2	-102	30dBm
QPSK_3/4	4.6	-100	30dBm
16QAM_1/2	6.5	-98	30dBm
16QAM_3/4	9	-96	30dBm
64QAM_2/3	12.5	-92	30dBm
64QAM_3/4	14	-90	30dBm
64QAM_5/6	16	-88	30dBm

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